

1997. *Oecologia* **111**: 549-556), although it has been reported from some 35 other host plants (Courtney & Duggan, 1983. *Ecol Entomol* **8**: 271-281). Whilst this is by no means a new record, as it was reported by Courtney & Duggan (*op. cit.*), many of the previous observations should be questioned because of the considerable difficulty in the definitive identification of *B. rapa*. Many records of *B. rapa* are probably escaped oilseed rape *Brassica napus*, as the two species look remarkably similar. The owner of the site was persuaded to maintain the population of *B. rapa* intact, which presumably will go some way to conserve the local population of Orange-tips.—JAMIE P. SUTHERLAND, School of Biological Sciences, University of Southampton, Bassett Crescent East, Southampton SO16 7PX (Email: jamie.sutherland@soton.ac.uk).

Voltinism of Ruby Tiger *Phragmatobia fuliginosa* (L.) (Lep.: Arctiidae) and other macro-moths in the Watford district, Hertfordshire

In common with West (*Ent. Rec.* **113**: 187), and in contrast to Plant (1993. *Larger Moths of the London Area*. London Nat. Hist. Soc.), I find that the second generation of the Ruby Tiger *Phragmatobia fuliginosa* is common in the Watford area. Indeed, I have no personal observations of the spring generation, which only occasionally comes to light in Britain, and have never seen the species flying by day in Hertfordshire (vice-county 20). At Garston, the second brood was recorded at actinic light in three of the six years 1995-2000, on all occasions appearing between 20 July and 16 August; my records from other locations in the district during 2000 and 2001 display the same pattern. This increasing prominence of the second brood has, as West notes, been widely observed in the southern counties, and is reflected in the text of the two editions of Skinner (1984. *Moths of the British Isles*. Viking) – originally said to be “mainly single-brooded... with a partial second generation in August and September”, but the 1998 update confidently stating that the moth is double-brooded. The greater frequency at light of the second generation is there emphasised.

Three other species show a significantly different seasonal pattern to that recorded in Plant (*op. cit.*). The presumed second generation of the Straw Dot *Rivula sericealis* (Scop.), described as frequent in southern Britain by Skinner (*op. cit.*), but not mentioned in Plant, now appears to be annual in this district. Between 6 and 22 August 2000, I recorded the species in actinic traps at two local sites. In 2001 it was frequent at mv light at Garston between 22 June and 6 July; five weeks elapsed before another appeared on 13 August. For vice-county 30, Arnold et. al. (1997. *The Butterflies and Moths of Bedfordshire*. Bedfordshire Natural History Society) report the species as occurring up to the week of 10 – 16 September, and the published results for National Moth Night on 23 September 2000 (*Atropos* **13**: 2-15) show a widespread distribution on that date in the southern half of England and Wales, with one record for north-west England.

The second brood of Green Carpet *Colostygia pectinataria* (Knoch), described by Skinner as "occasional and partial", also seems to be growing in strength. Throughout August and September 2000 the species was very common in actinic traps in the Watford area. Plant refers to the August brood as being smaller than the May-July emergence, but this no longer appears to be the case: Hayward (2000. *AES Bulletin* 59: 137-164), in urban Berkshire (vice-county 22), reports the reverse, and describes the species as increasing. The National Moth Night results referred to above are similar to those for the Straw Dot.

A. A. Allen (*Ent. Rec.* 112: 10) puzzles over the voltinism of Willow Beauty *Peribatodes rhomboidaria* (D. & S.), another species which may be in the process of becoming double-brooded. Both Plant and Skinner refer to a possible second brood in September as occasional and partial. My own records for actinic light at Garston, covering the years 1995-2000, show a date range of 14 June to 9 September, with later individuals on 23 September 1998 and at mv light on 16 and 26 September 2000. Peak numbers are reached here in mid-August, rendering separation of the two suspected generations more difficult than in those species previously discussed. This species was also widely recorded through southern Britain (north to North Wales) during National Moth Night 2000. Allen's note bears an unfortunate misprint: the date referred to in the second line should read 11 June, not 1 (A. A. Allen, *pers. comm.*).— C. M. EVERETT, The Lodge, Kytes Drive, Watford, Herts WD25 9NZ.

More on the changing voltinism of Hertfordshire's moths

I was most interested to receive Colin Everett's contribution, above, on apparent changes in the voltinism of several moth species in southern Hertfordshire (which also falls within the "London Area" as defined in my 1993 work to which he refers). That work, of course, summarised a large number of records from a range of localities throughout the region covered, between the North Downs in Surrey and Kent, across the London Basin and out to the Chiltern chalk on the Hertfordshire boundary with Bedfordshire and Cambridgeshire. Inevitably, it took no real account of local variations, but presented an overview for the wider area. That having been said, it is clear that there are trends, in some species, towards larger, or even new, autumn broods. I cannot easily provide updated London Area data, but can do so for Hertfordshire, the data for which is fully computerised.

The Herts Moth Database shows records of Ruby Tiger *Phragmatobia fuliginosa* in the period 15 July to 18 August in the years from 1995 to 2001. This accords well with Everett's results of 20 July to 16 August. The same database (excluding Everett's own data), indicates records of Straw Dot *Rivula sericealis* on 30 May, 14-24 June, 2-4 July, 21-29 July and 5-25 August (inclusive dates indicating at least one record on every date in that band).